SW IDENT _____ (Form 2, Page 1 - Item 1) EFF DATE__/__/__ (Form 2, Page 1 - Item 3)

---

11. ——— Homing Arrangements ———

As may be applicable, enter the appropriate 11 character SW IDENT (e.g. CLLI) to which the switching entity/POI may home to for various feature group capabilities, signaling, etc.

ORIG-	FG D TDM _____	FG B TDM _____	HOST _____
	FG C TDM _____	OS TDM _____	800 SSP _____
TERM-	FG D TDM _____	FG B TDM _____	HOST _____
	FG C TDM _____	OS TDM _____	
STP-	STP 1 _____	STP 2 _____	PC _____

12. ——— Switching Entity/POI Functionalities ———

Enter an "X" next to all functionalities which apply. At least one functionality must be flagged.

END OFC	___	HOST	___	REMOTE	___	FG D ADJ EO	___
FG D TDM	___	FG B TDM	___	FG C TDM	___	FG D ADJ TDM	___
DA TDM	___	OS TDM	___	STP	___	CELLULAR TDM	___
ISDN OFC	___	PPSN OFC	___	SW56 OFC	___	CCS AC OFC	___
CELLULAR OFC	___	CLASS 4/5	___	DA OFC	___	800 SSP	___
INTERM OFC	___						

13. ——— Switching Entity/POI Network Services ———

Enter an "X" next to all services which apply.

FG A	___	800	___	MARINE	___	CLASS	___	INFO PVDRO	___
FG B	___	WATS	___	MOBILE	___				
FG C	___	UWAL	___	CONF	___	PVN	___		
FG D	___	COIN	___	AIR-GND	___				
ANI	___	PAGING	___	TOLL STA	___	900	___		
FANI	___								

Following are LOCALITY data requirements for the Routing DataBase System (RDBS). Section 1.4 of the COCAG Forms Part 2 Job Aid may be referenced for assistance in completing this form.

New Locality	All items are required unless otherwise noted.
Data change	All items are required unless otherwise noted.
Delete	Only items 1-5 should be provided (enter CNTY only if applicable)

1.	LOCALITY	_____	LOCALITY is required to identify the geographical area serviced the CO Code (NNX/NXX) (Maximum of 10 characters).
2.	CNTY	_____	If applicable (to clarify the LOCALITY), enter a two character code for the county in which the locality resides.
3.	ST	_____	Enter a two character state code for the state of the locality.
4.	STATUS	_____	E = new LOCALITY, M = change to RATE CENTER, D = delete
5.	EFF DATE	___/___/___	Date a LOCALITY should first be used, date supporting RATE CENTER change will be effective or, date of deletion (mm/dd/yy)
6.	RATE CENTER	_____	Identifies the exchange rate center served by the CO Code (NNX/NXX) (Maximum of 10 characters)

Central Office Code (NNX/NXX) Assignment Request - Part 2, Form 4

Following are RATE CENTER data requirements for the Routing DataBase System (RDBS). Section 1.5 of the COCAG Forms Part 2 Job Aid may be referenced for assistance in completing this form.

New RATE CENTER — All items are required unless otherwise noted.

Data change — Items 1-5 are required (TYPE only if applicable), as are the appropriate element(s) to be changed.

Delete — Only items 1-5 should be provided (TYPE only if applicable).

---

1. RATE CENTER _____ Identifies the exchange rate center locality served by the CO Code (NNX/NXX) (Maximum of 10 characters)

2. STATE _____ Enter a two character code for the state or territory of the Rate Center.

3. TYPE _____ If applicable, enter an indicator for the type of rate center (Choose one - S, Z, /, +)

4. STATUS _____ E = new RATE CENTER, M = change to supporting data, D = delete

5. EFF DATE ___/___/___ Date a new code can first be routed to, date supporting data change will be effective or, date of disconnect (mm/dd/yy)

6. RC NAME _____

Enter up to 30 characters as may be needed to clarify the line 1 entry. If the line 1 entry is sufficiently clear, re-enter it here.

7. Enter Major Vertical (VC) and Horizontal (HC) coordinates of the RATE CENTER:

MAJOR VC: _____ MAJOR HC: _____

If applicable, enter Minor coordinates:

MINOR VC: _____ MINOR HC: _____

8. LATA _____ Local Access Transport Area code (3 digits, 5 may apply in Florida)

9. NPA _____ NPA-2 _____ NPA-3 _____

Enter the Numbering Plan Area code (Area Code) associated with the RATE CENTER as NPA. If the RATE CENTER supports CO Codes (NNX/NXXs) in more than one NPA, enter the others as NPA-2 and NPA-3, as applicable.

10. BASE STATION _____ STATE _____ TYPE _____

If applicable, an established rate center name, STATE, and TYPE (if applicable) which is to be used as a base station for operator assisted mobile service.

11. OPER RC _____ STATE _____ TYPE _____

If applicable, an established rate center name, STATE, and TYPE (if applicable) which is to be used as a base station for operator assisted Public Land Mobile Service.

NPA _____ NXX ____ (Form 5-Page 1-Items 1, 2) EFF DATE __/__/__ (Form 5-Page 1-Item 4)

15. Enter Major Vertical (VC) and Horizontal (HC) coordinates of the RATE CENTER:

MAJOR VC: _____ MAJOR HC:_____

If applicable, enter Minor coordinates:

MINOR VC: _____ MINOR HC:_____

16. PLNAME (10) _____ Enter up to 10 characters that are to appear on billing as the called location.

17. Enter up to 50 characters to clarify PLNAME (10) (can be identical to PLNAME (10)). Also enter the appropriate two character state code.

_____

ST: ____

18. Enter up to 50 characters for the RATE CENTER name and the appropriate two character state code.

_____

ST: ____

19. Enter up to 50 characters for the LOCALITY name and the appropriate two character state code.

_____

ST: ____

Following are CO Code (NNX/NXX) data requirements for the Bellcore Rating Input Data System (BRIDS). Section 2.1 of the COCAG Forms Part 2 Job Aid may be referenced for assistance in completing this form.

New code	All items are required unless otherwise noted.
Data change	Items 1-4 are required, as are the appropriate element(s) to be changed.
Disconnect	Only items 1-4 should be provided.

1.	NPA	_____	Numbering Plan Area code (Area Code) in which the CO Code (NNX/NXX) has been assigned
2.	NXX	_____	The assigned CO Code (NNX/NXX)
3.	STATUS	_____	E = new code, M = change to supporting data, D = disconnect
4.	EFF DATE	___/___/___	Date a new code can first be routed to, date supporting data change will be effective or, date of disconnect (mm/dd/yy)
5.	OCN	_____	Operating Company Number
6.	NXXTYPE	_____	Identifies use of CO Code (NNX/NXX) (Choose one of listed values in Job Aid)
7.	LATA	_____	Local Access Transport Area code (3 digits, 5 may apply in Florida)
8.	CO TYPE	_____	Company Type - (Choose appropriate value 0-7)
9.	BILL RAO	_____	A valid Revenue Accounting Office code.
10.	BO CODE	_____	Enter the appropriate Business Office code.
11.	TIME ZONE	_____	0-None, 1-Samoa, 2-Hawaii, 3- Alaska/Yukon, 4-Pacific, 5-Mountain, 6-Central, 7-Eastern, 8-Atlantic, Newfoundland
12.	IDDD	_____	International Direct Distance Dialing (Y - if the CO Code (NNX/NXX) can place IDDD calls, N - if not)
13.	DIND	_____	Dialable Indicator (Y - if directly dialable, N - if not)
14.	DAYLIGHT SAVINGS	_____	(Y - if the CO code (NNX/NXX) serves an area that observes daylight savings, N -if not)

Central Office Code (NPA/NXX) Assignment Request - Part 2, Form 6

Following are Business Office data requirements for the Bellcore Rating Input Data System (BRIDS). Section 2.1 of the COCAG Forms Part 2 Job Aid may be referenced for assistance in completing this form.

New office	All items are required unless otherwise noted.
Data change	Items 1-4 are required, as are the appropriate element(s) to be changed.
Delete	Only items 1-4 should be provided.

---

1. NPA _____ Numbering Plan Area code (Area Code) in which the CO Code (NNX/NXX) has been assigned
2. BO _____ A numeric code (max 3 digits) used to tie this data to NXX data (Form 5)
3. STATE _____ Two character state code for the state of the NPA
4. STATUS _____ E = new office, M = change to supporting data, D = delete
5. EFF DATE ___/___/___ Date data for a new office can be used, date supporting data change will be effective or, date of deletion (mm/dd/yy)
6. OCN _____ Operating Company Number
7. Indicate address and telephone information for a Business Office. Also, indicate the particular type of business office(s) to which the address data applies.

Business: Billing ___ Orders ___ Residence: Billing ___Orders ___ Other: Title _____

ADDRESS _____

_____ PHONE _____

CITY _____ STATE _____ ZIP _____

Business: Billing ___ Orders ___ Residence: Billing ___Orders ___ Other: Billing ___ Orders ___

ADDRESS _____

_____ PHONE _____

CITY _____ STATE _____ ZIP _____

Business: Billing ___ Orders ___ Residence: Billing ___Orders ___ Other: Billing ___ Orders ___

ADDRESS _____

_____ PHONE _____

CITY _____ STATE _____ ZIP _____

Administrator's Response/Confirmation

Date of Application: _____ Date of Receipt: _____

Date of Response: _____ Effective Date: _____

Code Administrator Contact Information:

_____ Phone: _____
Signature of Code Administrator

_____ Fax: _____
Name (print)

___ **Code Assigned:** ____ **NPA:** ____ **Date of NXX Code Assignment:** ____

a. **Switch Identification (Switching Entity / POI)[1]:** _____

b. **Routing and Rating information complete: Yes** _____ **No** _____
Additional RDBS and BRADS information necessary as follows:

_____

c. **The Code Administrator is** _____, **is not** ___[2] **responsible for inputting Part 2 information into RDBS and BRADS.**

d. **To be published in the LERG and TPM by** _____ **additional RDBS and BRADS information needs to be received by the code administrator no later than** _____.

___ **Code Reserved:** _____ **Date of Reservation:** _____

Your code reservation will be honored until _____

Switch Identification (Switching Entity / POI)[1]: _____

___ **Form incomplete**

Additional information required in the following section(s):

_____

___ **Form complete, code request denied.**

Explanation: _____

___ **Assignment activity suspended by the administrator.**

Explanation: _____

Further Action: _____

___ **NPA in jeopardy: Yes** _____ **No** _____

If yes, refer to Section 7 of the assignment guidelines.

Remarks:

_____

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1 This is an eleven-character descriptor of the switch provided by the owning entity for the purpose of routing calls. This is the 11 character COMMON LANGUAGE Location Identification® (CLLI) of the switch or POI shown on Part 1 of this form.

2 WARNING! It is the code applicant's responsibility to arrange input of Part 2 information into RDBS and BRADS. The 90 calendar day nation-wide minimum interval cut-over for RDBS and BRADS will not begin until input into RDBS and BRADS has been completed.

Confirmation of Code Activation (Required)

By signing below, I certify that the CO code (NNX/NXX) specified in Section 1 below is in service and that the CO code (NNX/NXX) is being used for the purpose specified in the original application (See Section 6.3.3).

Authorized Representative of Code Applicant (Print) _____ Signature _____

Title _____ Date _____

1. **NPA-NNX/NXX code:** _____-_____

2. **Switch Identification (Switching Entity / POI)[1]:** _____

3. **Dates:**

   Date of Application: _____

   In-Service Date: _____

[1] This is an eleven-character descriptor of the switch provided by the owning entity for the purpose of routing calls. This is the 11 character COMMON LANGUAGE Location Identification® (CLLI) of the switch or POI.

ICCF

Industry Carriers
Compatibility Forum

Under the auspices of the
Carrier Liaison Committee

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COMMITEE:

NPA Code Relief Planning
Workshop

Co-Chairs

Chris Kostenbader
Bell Atlantic Mobile

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GTE

NPA CODE RELIEF

PLANNING GUIDELINES

Sponsored by the
Alliance for Telecommunications
Issue 1 Industry Solutions

12/16/94

NPA RELIEF PLANNING GUIDELINES

1.0 Purpose and Scope of this Document

The purpose of this document is to provide planning guidelines to NPA Relief Coordinators, affected parties and applicable regulatory authorities within affected NPAs within the North American Numbering Plan area. It lists the assumptions, constraints, and the planning principles used in NPA Code relief planning efforts. It also lists the steps of the NPA Code relief planning process and describes the alternative methods of providing NPA Code relief and their various attributes.

2.0 Assumptions and Constraints

The development of these guidelines include the following assumptions and constraints:

2.1 These guidelines are intended to apply to geographic NPA relief planning only.

2.2 These guidelines were developed to facilitate and help standardize the geographic NPA relief planning process.

2.3 Relief activities will be undertaken to provide relief to an exhausting NPA. For the purpose of NPA relief planning it is assumed that the capacity of an NPA is 792 CO codes (NXX). However, in overlay NPA situations the CO code exhaust capacity will be the number of NPA codes assigned to that geographic area times 792.

2.4 The relief plan chosen will seek to minimize end users' confusion while balancing the cost of implementation by all affected parties.

2.5 All efforts should be made to choose a plan that does not favor a particular interest group, i. e., no carrier should receive a distinct competitive advantage over other carriers as a result of reaching a consensus on a particular plan.

2.6 It is assumed that the CO code administrator organization will provide the moderator for all relief planning meetings and that moderator will run meetings in a fair and impartial manner ensuring that all participants have any opportunity to express their opinions.

2.7 These relief planning guidelines were developed without making any assumption as to who will fill the role of CO code administrator or NANP administrator.

2.8 CO codes and NPA codes are public resources and administrative assignment of these codes does not imply ownership of the resource by the entity performing the administrative function, nor does it imply ownership by the entity to which the resource is assigned.

2.9 The appropriate regulatory commission (e.g. state, province, country) has the ultimate authority to approve or reject a relief plan.

2.10 In the United States, geographic NPA code boundaries do not currently extend across state lines.

2.11 Once there is a consensus/approved relief plan all code holders in the exhausting NPA will take the appropriate steps to facilitate the implementation of the plan.

2.12 These guidelines and all related documents/guidelines[1] referenced herein will be made available to all affected parties by the Relief Coordinator upon request.

3.0 NPA Relief Planning Principles

The following principles should be followed during NPA Code Relief planning:

1. Industry notification of NPA Code relief activities as outlined in ICCF 92-1127-006, Industry Notification of NPA Relief Activities, should be followed.

2. The NPA Code Relief Coordinator should facilitate the selection of a consensus NPA code relief alternative based upon input as outlined in Section 4 below.

3. Communications should be established with all affected industry members, appropriate regulatory bodies, and the North American Numbering Plan Administrator (NANPA). This should be initiated immediately after the need for NPA Code relief has been determined.

4.0 The NPA Relief Planning Process

To ensure full compliance with the Principles described in section 3 during NPA Relief Planning, the following steps are recommended in the development of specific relief plans for geographic NPAs.

4.1 Determine the Expected NPA Exhaust Period

Through the use of historical growth data as well as expected changes to NXX growth demands in the future, the Relief Coordinator should project to the best of his/her ability the expected exhaust of the NPA. The Central Office Code Utilization Survey (COCUS) should be used as an aid in this projection. Consideration may be given to unforeseen but reasonable increases and/or decreases to expected growth rates which

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1 ICCF92-1127-006, Industry Notification of NPA Relief Activity Guidelines
ICCF93-0729-010, Central Office Code Assignment Guidelines
ICCF92-0726-004, Recommended Notification Procedures to Industry for Changes in Access Network Architectures

would result in an exhaust "window" rather than a specific exhaust date. Once the earliest likely exhaust date is determined, the Coordinator should establish a mandatory dialing date six to twelve months prior to that date, giving consideration to items such as busy seasons, customer service order activity, customer equipment and number changes, and any other concerns which would increase the probability for service problems during the transition period.

4.2 Identify the Alternative Relief Methods Available

Within the affected NPA, the Relief Coordinator should next identify possible NPA relief alternatives and methods from among those identified in Section 5. This may include one or more NPA Split alternatives, at least one Overlay alternative, and, where applicable, one or more NPA Boundary Realignment alternatives. Combinations of these alternatives may also be considered.

4.3 Define the Attributes of Each Alternative or Method

For each of the alternative relief methods identified in 4.2, the Coordinator should next list and quantify the impacts, using Appendix A of this document, in order to determine the advantages and disadvantages of the alternatives. Specific calculations such as the relative lengths of the relief periods, identify the impacts of dialing local calls using 7-digits or 10-digits on an industry segment basis, and the number of subscribers requiring number changes should be made at this point. Technical and operational impacts should also be identified including items such as required switch replacements and support system modifications.

4.4 Notify Industry of Pending NPA Exhaust and Results of Initial Relief Planning

The next step in the recommended Relief Planning Process is to incorporate the results of the steps outlined in 4.1 through 4.3 into an Initial Planning Document for distribution to the Industry in the affected NPA. Attached to the Document should be a letter notifying Industry members of future meeting schedules to be held for the purpose of discussing the alternative relief methods, with the objective of reaching consensus on the method to be adopted. The Relief Coordinator should also make available copies of this document, as well as other relevant numbering documents[1]. Sufficient time should be provided prior to the meetings to allow individual industry members to fully analyze the alternatives from the perspectives of affects on their customers, economics, and technological and operational impacts.

---

1 ICCF92-1127-006, Industry Notification of NPA Relief Activity Guidelines
ICCF93-0729-010, Central Office Code Assignment Guidelines
ICCF92-0726-004, Recommended Notification Procedures to Industry for Changes in Access Network Architectures

4.5 Conduct Industry Meetings with the Goal of Reaching Industry Consensus on a Relief Plan

Meetings and/or conference calls should be held with all interested members of the Industry within the affected NPA after each has had sufficient time to analyze the proposed alternative relief methods. The Relief Coordinator should provide a Moderator at these meetings or conference calls and be fully prepared to answer questions regarding the alternatives. During the meetings/conference calls, new alternatives may be proposed and should be included in these discussions. Initially, separate meetings for the various Industry segments may be held to increase efficiency and manageability. Inasmuch as the objective of these meetings is to reach Industry consensus, subsequent joint meetings will be required.

In addition to discussing the alternatives, more detailed issues such as new NPA boundaries, local calling areas, regulatory issues, customer education, and the length of any necessary permissive dialing periods should be discussed.

All meetings and/or conference calls should be fully documented in meeting minutes which are to be made available to the participants prior to the subsequent meeting or call. Copies of meeting minutes may also be forwarded to the appropriate regulatory body as well as to the North American Numbering Plan Administrator.

4.6 Notify Appropriate Regulatory Body

When consensus is reached within the Industry or when it appears that additional meetings would not achieve consensus, the NPA Relief Coordinator should submit to the appropriate regulatory body (or bodies) the results of the Industry effort. If consensus was not obtained, the NPA Relief Coordinator may ask the Regulatory body for assistance in reaching a solution. If regulatory assistance is required to adopt a "final plan", the NPA Relief Coordinator should prepare a "final recommendation" for circulation and then submit the "final plan" plus comments, if any, provided by industry participants to the appropriate regulatory body. Regulatory activities will vary by state. The Relief Coordinator should be prepared to furnish to the regulators any background information deemed necessary including the original studies, meeting minutes, mailing lists, etc. The NPA Relief Coordinator should prepare a "final recommendation" for circulation and comment by industry participants. The NPA Relief Coordinator should then submit the "final plan" plus comments, if any, provided by industry participants, to the appropriate regulatory body.

4.7 Notify the North American Numbering Plan Administrator (NANPA)

When the final NPA Relief Plan has been determined, and at least 18 months prior to the NPA Relief date, the Relief Coordinator should formally notify NANPA of the pending NPA exhaust, request formal assignment of a new NPA, and submit sufficient background information to justify the assignment of a code. Normally this would include the exhaust and relief projections discussed in 4.1 and 4.3, a description of the relief method to be utilized, and the relief schedule. In those situations where a final

plan has not yet been developed prior to the 18-month requirement, the Planner should forward whatever information is available at that time, together with a statement that the final relief method has not yet been determined.

4.8 Public Statements/Press Releases

Public statements released prior to the first industry NPA relief planning meeting should, to the extent available, contain:

- factual information about the impending exhaust of the NPA
- that the telecommunications industry in the exhausting NPA will meet (time/place) to begin planning for the relief
- and that questions concerning the relief effort may be directed to the NPA Relief Coordinator (name/tel. no.).

The relief alternatives described in Section 5 below may be identified as the range of possible alternatives, however, preference regarding specific relief alternatives should not be discussed.

During the relief planning process, public statements are not encouraged. However, some states may require input from the public to the planning process. If questions are directed to the Relief Coordinator , or if reaction to a press article is warranted, responses should, to the extent possible, be limited to factual information (as opposed to opinion or preference) concerning relief options being considered and to agreements reached by the industry planning committee.

Upon reaching consensus on a relief plan, a press release developed with industry input may be issued to inform the public of the industry approved plan for relief of the exhausting NPA.

If there is no industry consensus for a relief plan, the NPA Relief Coordinator may advise the public of that fact and that a final recommendation, along with written comments from industry participants, have been submitted to the appropriate regulatory authority for its final disposition. Upon regulatory approval of a relief plan, the NPA Relief Coordinator will advise the public of the details of the plan.

This does not preclude NANPA from issuing its standard ILs in accordance with industry guidelines for such notice (see ICCF 92-1127-006).

5.0 Alternative Relief Methods

All of the currently identified code relief alternatives are described below. Possible impacts of these alternatives are found in Appendix A.

5.1 NPA Split Method

By this method, the exhausting NPA is split into two geographic areas, leaving the existing NPA code to serve, for example, an area with the highest customer density (in order to minimize number changes), and assigning a new NPA code to the remaining area. This method divides areas by jurisdictional, natural or physical boundaries (counties, boroughs, cities, rivers, etc.) between the old and new NPAs.

This method has been the alternative chosen for practically all NPA relief situations prior to 1995. NPA splits have occurred with enough frequency so that technical aspects have been addressed and established implementation procedures are generally understood. Public education and acceptance of the process has been made easier because of the numerous NPA splits that have occurred. This method generally provides long term relief for an area.

5.2 Boundary Realignment Method

In an NPA boundary realignment, the NPA requiring relief is adjacent to an NPA, within the same state or province, which has spare NXX code capacity. A boundary shift occurs so that spare codes in the adjacent NPA can be used in the NPA requiring relief. As a result, the geographic area of the exhausting NPA shrinks, and the geographic area of the NPA with spare capacity expands. Only the customers in the geographic area between the old and new boundaries are directly affected by this change.

This method applies to multi-NPA states or provinces only. It could provide for a better balance of central office (NXX) code utilization in the affected NPAs. This method is viewed as an interim measure because it tends to provide a shorter term relief than when providing a new NPA code.

5.3 Overlay Method

An NPA overlay occurs when more than one NPA code serves the same geographic area. In an NPA overlay, code relief is provided by opening up a new NPA code within the same geographic area as the NPA(s) requiring relief. Numbers from this new NPA are assigned to new growth on a carrier neutral basis, i.e., first come first served. Mandatory customer number changes within the affected overlay relief area are eliminated. In most cases, with the overlay, relief method 10 digit dialing is required for some of the affected customers calling patterns. Since the overlay relief method could result in unequal dialing for those customers served out of the overlay NPA, mandatory 10 digit dialing is recommended for all NPAs covered by the NPA coincident with the implementation of an overlay.

The overlay method reduces or eliminates the need for customer number changes like those required under the split and realignment methods. It also allows the option to eliminate the permissive dialing period as a part of implementation. This method will

necessitate ten digit dialing of local calls between the old and new NPAs as central office (NXX) codes are implemented in the new NPA.

NPAs have been previously implemented within an area and will vary with the individual characteristics of the area involved.

Four potential implementation strategies have been identified for an NPA overlay. They are listed below.

5.3.1 Distributed Overlay

The distributed overlay strategy may be considered in situations when growth in telephone numbers is expected to be more or less evenly distributed throughout the existing NPA requiring relief. The new NPA is added to the NPA requiring relief and shares exactly the same geographic boundaries. When growth telephone numbers are required, they are assigned from the new NPA.

5.3.2 Concentrated Growth Overlay

A concentrated growth overlay may be considered in situations when the majority of the new telephone numbers are expected to be concentrated in one section of the existing NPA. For example, a fast growing metropolitan area and a sparsely populated rural area could exist within the same NPA. The overlay NPA would be assigned initially to the section of the NPA experiencing the fastest growth, and new phone numbers in that section would be assigned from the new NPA. As more relief is required, the geographic area served by multiple NPAs could expand.

5.3.3 Boundary Extension Overlay

With a boundary extension overlay, the NPA requiring relief is adjacent to an NPA with spare capacity. The boundary between these two NPAs is eliminated, and spare NXX codes from the adjacent NPA are assigned within the original NPA boundary where relief is required. An appropriate use of boundary extension might be in a state or province consisting of two NPAs, where one NPA has spare capacity. This solution has the advantage of not requiring a new NPA code, but it also shares some of the limitations of boundary realignment, in that it provides less long term relief.

5.3.4 Multiple Overlay

The multiple overlay strategy may be considered where relief is required in two or more NPAs. For example, this solution may be appropriate in a metropolitan area where two or more NPAs cover a small geographic area, and where it would be difficult to implement another kind of relief, i.e., a split or a distributed overlay. The new NPA would be assigned to overlay the multiple existing NPAs serving the entire metropolitan area. As another example, a new NPA could be assigned for new growth within an entire state or province, where more than one NPA exists.

5.4 Other

A combination of the methods described above may be used. For example, a concentrated growth overlay could be assigned initially to a section of an NPA experiencing fast growth, and as more relief is required, the section served by two NPAs could expand into a distributed or multiple overlay as demand requires. Other combinations of relief methods may be appropriate. Each NPA requiring relief must be analyzed on the basis of its own unique characteristics with regard to demographics, geography, regulatory climate, technological considerations, and community needs and requirements.

6.0 Other Relief Planning Considerations

This Section describes miscellaneous considerations which should be included during the NPA Relief Planning Process. It is not possible to identify every potential issue which may arise when planning relief for specific NPA's; each state or province, each metropolitan area, and each industry segment will have unique characteristics which could introduce concerns not included here. The following items are examples of issues which, based on past industry experiences, could create impediments to a successful and efficient implementation effort.

6.1 Organization Considerations

To the maximum extent possible, NPA Relief Planning should include considerations of organizational continuity. This includes not only the Administrator's own organization or entity, but continuity within the industry as well. The chances for successful implementation of relief efforts are greatly enhanced if there is smooth transition from the planning phase and continued involvement with the industry team as implementation progresses. Thorough documentation and dissemination of information throughout the planning process will assist in ensuring the desired continuity in the event personnel and/or organizational changes disrupt the transition.

6.2 Regulatory Issues

Involvement of the State Regulatory Staff during NPA code relief planning may expedite the process by addressing public policy concerns throughout the process.

6.3 Timing and Schedules

Issues related to timing and scheduling will vary with the type of relief method to be implemented as well as the level of difficulty of the required changes. In any case, the relief effort should be planned to be completed at least three months before the existing NPA would exhaust under the highest growth projections.

NPA splits require the establishment of a permissive dialing period during which calls placed to the area to be served by the new NPA can be completed whether the new or

the existing NPA code is dialed by the caller. During this time changes are made to business telephone systems, wireless devices, alarm system networks, and individual subscribers' custom calling features lists. In addition, ANI information and billing/ ordering systems may be modified to handle the new NPA code. Central office codes may not be duplicated in the old and new NPA's during this time.

Initial NPA overlays may require operational support systems to be modified due to the need for full 10-digit customer notification. Time should be built into the implementation plan for these modifications.

The length of the permissive dialing period may vary depending on the amount of time required to accomplish the above activities. Permissive dialing periods as short as four months or as long as two years have historically been used. A decision regarding the length of the permissive dialing period, if required, must be a part of the overall Plan.

When establishing transition schedules, consideration should also be given to avoiding the need to make network changes during the busiest times of the year, from the perspectives of call volumes, customer movement, and holidays. Other scheduling concerns include the length and type of customer education efforts, the length of time required for network changes, and overall budget considerations.

For more information regarding notification procedures see ICCF Document 92-1127-006, "Industry Notification of NPA Relief Activity Guidelines".

6.4 Customer Calling Patterns

Existing and planned local calling areas should be considered during the Planning Process and retained, wherever practical, along with their existing or planned dialing arrangements. This may prevent regulatory/public policy delays during implementation and/or unexpected changes to the final plan.

6.5 Interest Group Considerations

It is difficult if not impossible during NPA relief efforts to avoid negative impacts on some customers within the NPA. Whichever alternative relief method is chosen, it is highly possible that one or more customer groups may attempt to influence the decision in a manner which is most favorable to them. Extreme care must be taken by the NPA Relief Coordinator to ensure that fair and equitable treatment is given to all subscribers within an area.

7.0 Maintenance of These Guidelines

These guidelines were developed by the NPA Code Relief Workshop of the Industry Numbering Committee (INC) under the auspices of the Industry Carriers Compatibility Forum (ICCF). Any recommended changes or modification to these guidelines should be directed to the Industry Numbering Committee.

8.0 Glossary

COCUS	Central Office Code Utilization Survey (COCUS) is conducted annually by NANPA from direct input received from Central Office Code Administrator(s) in order to monitor central office code utilization, projected exhaust of NPAs and demand for new NPAs to provide code relief. The purpose of COCUS is to provide an annual overall view of both present and projected CO code (NNX/NXX) utilization for each NPA in the NANP.
Code Administrator	Entity(ies) responsible for the administration of the NXXs within an NPA.
Code Holder	The entity to whom a CO code (NNX/NXX) has been assigned for use at a Switching Entity or Point of Interconnection it owns or controls.
Conservation	Consideration given to the efficient and effective use of a finite numbering resource in order to minimize the cost and need to expand its availability, while at the same time allowing the maximum flexibility in the introduction of new services, capabilities and features.
Consensus	Consensus is established when substantial agreement has been reached among interest groups participating in the consideration of the subject at hand. Interest groups are those materially affected by the outcome or result. Substantial agreement means more than a simple majority, but not necessarily unanimity.
Jeopardy NPA	A jeopardy condition exists when the forecasted and/or actual demand for NXX resources will exceed the known supply during the planning/implementation interval for relief. Accordingly, pending exhaust of NXX resources within an NPA does not represent a jeopardy condition if NPA relief has been or can be planned and the additional NXXs associated with the NPA will satisfy the need for new NXX codes.
Moderator	An employee of the CO Code Administrator's organization which presides over NPA Code Relief coordination meetings. Responsibilities usually include issuing the meeting announcement, coordinating meeting arrangements, leading

the meeting, issuing meeting minutes, and other duties as necessary to conduct the meeting.

NANP — The North American Numbering Plan is a numbering architecture in which every station in World Zone 1 is identified by a unique ten-digit address consisting of a three-digit NPA code, a three digit central office code of the form NNX/NXX, and a four-digit line number of the form XXXX, where N represents the digits 2-9 and X represents any digit 0-9.

NANPA — North American Numbering Plan Administration. With divestiture, key responsibilities for coordination and administration of the North American Numbering/Dialing Plans were assigned to NANPA. These central administration functions are exercised in an impartial manner toward all industry segments while balancing the utilization of a limited resource.

NPA — Numbering Plan Area, also called an area code. An NPA is the 3-digit code that occupies the A, B, and C positions in the 10-digit NANP format that applies throughout World Zone 1. NPAs are of the form N0/1X, where N represents the digits 2-9 and X represents any digit 0-9. After 1/1/95, NPAs will be of the form NXX. In the NANP, NPAs are classified as either geographic or non-geographic.

a. Geographic NPAs are NPAs which correspond to discrete geographic areas within World Zone 1.

b. Non-geographic NPAs are NPAs that do not correspond to discrete geographic areas, but which are instead assigned for services with attributes, functionalities, or requirements that transcend specific geographic boundaries. The common examples are NPAs in the N00 format, e.g. 800.

NPA Code Relief — NPA code relief refers to an activity that must be performed when an NPA nears exhaust of its 640 NNX or the 792 NXX capacity. Relief is typically provided to an NPA about a year before its capacity is reached. NPA Code relief for an NPA that is nearing the 640 NNX limit is usually provided in the form of implementing interchangeable central office code (ICOC) which provides an additional 152 assignable central office codes. An NPA that has been implemented as ICOC has a capacity of 792 assignable NXX central office codes. Providing code relief to such an NPA normally takes the form

of assigning a new NPA for an NPA split or overlay. Another option is changing the boundary of the existing NPA.

NPA Relief Date The date by which the NPA is introduced and routing of normal commercial traffic begins.

Premature Exhaust (When referring to NANP): Premature exhaust means the exhaust of NANP resources (i.e., requires expansion beyond the 10-digit format) much sooner than the best industry projections. The NANP is expected to meet the numbering needs of the telecommunications industry well into the 21st century (i.e., a minimum of 25 years).

(When referring to NPA): Premature exhaust is when a specific date for NPA relief has been established and the NPA is projected to exhaust prior to that date.

Relief Coordinator Organization within the CO Code Administrator's which has the responsibility of providing NPA Code relief.

Service Providers Any entity that is authorized, as appropriate, by local governmental, state, federal or World Zone 1 governmental authorities to provide communications services to the public.

Working Telephone Numbers (TNs) The quantity of telephone numbers within existing CO codes (NNX/NXX) which are assigned to working subscriber access lines or their equivalents, e.g., direct inward dialing trunks, paging numbers, special services, temporary local directory numbers (TLDNs), etc., within a switching entity/POI.

STIPULATION AND AGREEMENT OF THE PARTIES ON NPA RELIEF IN THE 818 AREA

(SHOWING MODIFICATIONS PROPOSED ON 5/1/95 IN ITALICS)

Whereas telephone numbers are forecasted to exhaust by the First Quarter of 1998 within the 818 NPA, and

Whereas the California Legislature and the Public Utilities Commission of California have determined that local exchange competition must commence no later than January 1, 1997, and

Whereas [*there is no assurance that*] permanent Local Number Portability will ~~not~~ be implemented by January 1, 1998 ~~(or, in all probability, prior to January 1, 1999)~~ to render an overlay plan of relief to be competitively neutral to new entrants into the local exchange market, and

Whereas it is appropriate to minimize the impacts of NPA relief on all segments of the telecommunications market, both wireline and wireless, and

Whereas Bellcore and the Industry Numbering Committee recommend 10 digit dialing be implemented within home NPAs coincident with the implementation of an overlay plan to mitigate its unequal dialing impacts on customers, and

Whereas the parties agree that an industry wide consensus will enable all parties to avoid costly and time-consuming litigation and will promote greater acceptance of a relief plan by the general public, and

Whereas each of the undersigned represents and warrants that he or she is duly authorized to execute this Stipulation on behalf of his or her respective company.

NOW THEREFORE, the parties agree and stipulate as follows:

1) A geographic split will identified as the relief plan for the 818 NPA. The boundary will generally follow those identified as Alternative 5 in the 818 Industry Relief Planning Forum. This boundary line generally demarcates the San Fernando Valley and the San Gabriel Valleys along natural (i.e. topographical) boundary lines and will thus separate Burbank from North Hollywood and La Crescenta from Sunland-Tujunga. This boundary is chosen as the one which will be most readily understood by the public because of its topography, the one which will preserve the greatest number of communities of interest and split the fewest municipalities, and which will provide the most equal period of relief with the San Fernando Valley NPA forcasted to last until the 3rd Quarter, 2006 and the San Gabriel Valley NPA forcasted to last until the 4th Quarter, 2006.

2) Subsequent NPA relief in these two regions shall give special consideration to an overlay plan of relief to avoid further shrinking of the NPA area and to minimize forced number changes.

3) The geographic split shall assign the 818 NPA to the San Fernando Valley to equalize the life of the two NPAs and to mitigate the impacts to tandem interconnections which are concentrated within the San Fernando Valley.

4) ~~Wireless providers~~ *Codeholders, including holders of partial codes*, will *retain current 7-digit numbers* ~~not be required to return existing telephone numbers. Existing wireless customers in the new NPA may retain current telephone numbers. Local Exchange Companies will continue to route calls for current wireless customers without change to current points of interconnection after the implementation of the new NPA and maintain current routing arrangements. New wireless customers in the new NPA will be assigned numbers in the new NPA.~~

5) The parties agree to jointly submit this plan for approval to the California Public Utilities Commission and to support its acceptance.

6) The parties agree to participate in public hearings to explain the plan, to respond to questions and comments concerning the plan, to consider public input in the final terms of the relief plan, and to share an reasonable portion of the costs associated with such hearings.

7) This stipulation represents an effort by all parties to develop a cooperative position on Area Code 818 relief. If the recommendation of the parties herein is rejected or modified by the California Public Utilities Commission, this stipulation shall be null and void and the parties reserve their right to modify their individual positions on Area Code relief.

818 NPA RELIEF INDUSTRY MEETING

January 18 & 19, 1995
177 E. Colorado Blvd., Room 104/105
Pasadena, California

SUMMARY OF ACTIONS

The following summarizes industry consensus reached during this industry meeting and the action items developed throughout the discussions.

Action: The following definition of consensus was put forth for ratification:

Consensus is established when substantial agreement has been reached among interest groups participating in the consideration of the subject at hand. Interest groups are those materially affected by the outcome or result. Substantial agreement means more than a simple majority, but not necessarily unanimity. Silence is considered consensus.

Action: The following groups are represented at this meeting:

LEC
IEC
Wireless (Cellular, Paging, PCS, ESMR) - not a unified group
CAP
CLEC (CATV)

Action: Monthly reports on 818 code usage actuals will be provided during the planning process to industry members by Bruce Bennett.

Action: The following Criteria for a Relief Plan were discussed and consensus was reached. The plan should:

Minimize impact for end users
Provide relief for 818 exhaust
Provide long-term relief
Equitable impact on all code holders
Comply with industry guidelines and regulatory requirements.
In addition, accommodate with evolving regulatory policies.
Recognize needs of future code holders.

Action: The following Relief Alternatives were boarded and will be discussed individually at the next meeting:

1. Split between Burbank and Glendale
2. Split between Sherman Oaks and North Hollywood, east of San Fernando
3. Split between Sherman Oaks and North Hollywood, west of San Fernando
4. Split between Glendale and Pasadena
5. Split Between North Hollywood and Burbank
6. Overlay 818 only
7. Overlay 818 and 213
8. Overlay 818 and 310

Action: General attributes of splits and overlays were listed. See attachment.

Action: Consensus was reached on Public Announcement

Due to increased demand for telephone numbers, an additional area code will be introduced in some or all of the area that now uses the 818 area code. [Name of Company] expects to bring this new area code into service as early as the end of the first quarter of 1997. The telecommunications industry is developing area code boundary proposals. Before the end of September, 1995, public meetings will be held to discuss potential area code introduction plans and to solicit public comment. Locations, dates and times of these public meetings will be announced at a later date.

This wording was rewritten to the 8th grade reading level as required for bill inserts by the California Public Utilities Commission. See attachment.

Action: Linda Bonnikzen will provide a draft Press Release to be available for all to look at prior to the next meeting. See attachment.

Next meeting: March 9 & 10, 1995, Burbank Airport Hilton

Prorated conference cost for each participant will be $33. This common conference charge is to be paid to the Burbank Airport Hilton at registration.